



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,985	03/03/2004	Spencer Wayne Bruce	99-056A	4871

7590 03/14/2005
Ronald D. Bakule
Rohm and Haas Company
100 Independence Mall West
Philadelphia, PA 19106

EXAMINER	
PERRIN, JOSEPH L	
ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. .

10/791,985

Applicant(s)

BRUCE ET AL.

Examiner

Joseph L. Perrin, Ph.D.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040603</u> . | 6) <input type="checkbox"/> Other: ____ |

72

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1746

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,985,572 to Petermann (hereinafter "Petermann") in view of U.S. Patent No. 4,863,524 to Komabashiri *et al.* (hereinafter "Komabashiri").

Re claims 1, 2 and 4, Petermann discloses a process of feeding a solution of water through multiple pressure sources to a reactor having an agitator with blades and pressure sources aimed at the agitator blades (column 5, lines 18-25; column 9, lines 27-48); emptying the reactor (Figure 1, which appears to show drain tubes on bottom of reactor; it is noted that emptying the reactor inherently must occur after a cleaning to perform next polymerization reaction); wherein the multiple pressure sources are hoses equipped with nozzles (column 5, lines 18-25); wherein the water is fed to the reactor at a pressure from 2,000 psi (138 bar) to 6,000 psi (414 bar) (column 5, lines 18-25); and wherein the reactor is equipped with a heat exchanger in an external loop (Figures 8A-8F; column 4, lines 52-60).

Although Petermann does not explicitly disclose wherein the pressure sources are stationary nor wherein the agitator is rotated while the solution is fed to the reactor, Petermann does disclose wherein the agitator is stationary and the pressure sources are rotated while the solution is fed to the reactor (column 1, lines 27-43; column 9, lines 27-48).

Komabashiri teaches that it is known to clean polymerization reactors using "high-pressure jet cleaning" (column 1, lines 28-32) and rotating an agitator "to effect chemical cleaning", *i.e.* improve chemical cleaning (column 4, line 57 –

column 5, line 13). Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to clean a reactor wherein the pressure sources are stationary and wherein the agitator is rotated while the solution is fed to the reactor, disclosed by Komabashiri, in place of wherein the agitator is stationary and the pressure sources are rotated while the solution is fed to the reactor, disclosed by Petermann, because one would have arrived at the same expected results (*i.e.* improved cleaning) since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167; *In re Gazda*, 104 USPQ 400 (CCPA 1955). The rearrangement of parts was also held to have been obvious. *In re Japikse*, 86 USPT 70 (CCPA 1950).

Re claims 1, 3, 5 and 6, Petermann does not explicitly disclose wherein the hoses are made of 316 stainless steel or wherein the cleaning liquid is aqueous base/caustic, but does disclose utilizing multiple nozzles with hoses to pressure clean a polymerization reactor with pressurized cleaning liquid (column 5, lines 1-25).

Komabashiri teaches that it conventional to utilize material in a polymerization reactor, agitator, and baffle-plates of 316 stainless steel (column 4, lines 51-56) for improved corrosion resistance, and wherein the cleaning agent is aqueous base or caustic at a temperature of 100°C or less achieving a remarkable chemical cleaning effect (column 3, line 61 – column 5, line 20).

Therefore, the position is taken that a person of ordinary skill in the art at the time the invention was made would have been motivated to modify the polymerization reactor cleaning system, disclosed by Petermann, with 316 stainless steel material and cleaning solution of aqueous base or caustic at 100°C, disclosed by Komabashiri, in order to provide improved polymerization reactor cleaning while maintaining advantageous corrosion resistance. Further, the use of conventional material to perform their known functions in a conventional process is obvious.

In re Raner, 134 USPQ 343 (CCPA 1962).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 5,782,989 to Rueter, which discloses cleaning a polymerization reactor with various liquids by adding the liquids and subsequently stirring; U.S. Patent No. 5,762,718 to Linstid, III, *et al.*, which discloses cleaning polymerization reactor internal walls with various liquids.
6. This is a divisional of applicant's earlier Application No. 09/641,155. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. In the instant case, claims 1-6 were finally rejected (over Petermann in view of Komabashiri) in the earlier application in the Final Office Action mailed 11 September 2003. Accordingly, **THIS ACTION IS MADE FINAL**

even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

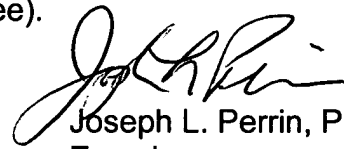
7. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1746

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Perrin, Ph.D.
Examiner
Art Unit 1746

jlp